WHAT IS CLAIMED IS:

1. An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam, said optical disk recording apparatus being connected to a host computer through an interface bus,

said optical disk data erasing apparatus comprising:

a judgement means for judging as to whether a loaded optical disk is a write-once optical disk or not;

an instruction recognition means for recognizing an instruction from the host computer; and

an erasing means for executing a data erasing process on the basis of the instruction;

wherein said erasing means overwrites the optical disk which is judged as a write-once optical disk by the judgement means, by irradiating the optical disk with a laser beam having the same recording power as that at recording, thereby erasing data recorded on the optical disk.

2. An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam, said optical disk recording apparatus being connected to a host computer through an interface bus,

said optical disk data erasing apparatus comprising:

a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an instruction recognition means for recognizing an instruction from the host computer; and

an erasing means for executing a data erasing process on the basis of the instruction;

wherein said erasing means overwrites the optical disk which is judged as a write-once optical disk by the judgement means, by irradiating the optical disk with a laser beam having a recording power higher than that at recording, thereby erasing data recorded on the optical disk.

3. An optical disk data erasing apparatus as defined in Claim 1 or 2, further comprising:

a disk recording information acquisition means for acquiring disk recording information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk, on the basis of a disk recording information acquisition instruction which is issued by the host computer;

wherein said erasing means erases data recorded in the data-recorded area.

4. An optical disk data erasing apparatus as defined in Claim 3, further comprising:

a determination means for determining whether data are

recorded on the write-once optical disk or not, on the basis of the disk recording information which is obtained by the disk recording information acquisition means;

wherein, when data are recorded on the write-once optical disk, said erasing means executes the recorded-data erasing process; and

when no data are recorded on the optical disk, said determination means returns an error signal to the host computer to notify the user that the data erasing process is not to be executed.

5. An optical disk data erasing apparatus as defined in Claim 3 further comprising:

a notification means for notifying the user of the disk recording information which is obtained by the disk recording information acquisition means, through the host computer; and

an erasing area detection means for detecting, when an instruction which specifies a data erasing area is issued from the user through the host computer on the basis of the disk recording information, an area corresponding to the specified data erasing area on the basis of the instruction;

wherein said erasing means erases the data recorded in the erasing area which is detected by the erasing area detection means.

6. An optical disk data erasing apparatus as defined in Claim 1 or 2 further comprising:

a setting means with which the user sets, through the host computer, whether the interface bus is to be occupied or not during execution of the data erasing process; and

a monitor means for monitoring the data erasing state on the basis of a state monitoring instruction which is periodically issued from the host computer, when it is set that the interface bus is not to be occupied;

wherein said host computer is able to execute another process during execution of the data erasing process, when it is set that the interface bus is not to be occupied.

7. An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam,

said optical disk data erasing apparatus comprising:

a first jumper switch setting means for setting ON/OFF of a first jumper switch;

a setting identification means for identifying the setting of the first jumper switch;

a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing means for overwriting the write-once optical disk

by irradiating the optical disk with a laser beam having the same recording power as that at recording, according to the setting of the first jumper switch, thereby erasing data recorded on the optical disk; and

an ejection means for automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is turned ON, said erasing means starts the data erasing operation; and

when the first jumper switch is OFF or when the judgement means judges that the loaded optical disk is not a write-once optical disk, said ejection means automatically ejects the optical disk, and a display means displays that the data erasing process is not to be executed on the optical disk.

8.   An optical disk data erasing apparatus which is an optical disk recording apparatus for writing or reading data in/from a recordable optical disk by irradiating the optical disk with a laser beam,

said optical disk data erasing apparatus comprising:

a first jumper switch setting means for setting ON/OFF of a first jumper switch;

a setting identification means for identifying the setting of the first jumper switch;

a judgement means for making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing means for overwriting the write-once optical disk by irradiating the optical disk with a laser beam having a recording power higher than that at recording, according to the setting of the first jumper switch, thereby erasing the data recorded on the optical disk; and

an ejection means for automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is turned ON, said erasing means starts the data erasing operation; and

when the first jumper switch is OFF or when the judgement means judges that the loaded optical disk is not a write-once optical disk, said ejection means automatically ejects the optical disk, and display means displays that the data erasing process is not to be executed on the optical disk.

9. An optical disk data erasing apparatus as defined in Claim 7 or 8 further comprising:

a checking means for checking whether the data erasing process has normally ended or not;

wherein, when the data erasing process for the write-once optical disk has not normally ended, said ejection means automatically ejects the optical disk, and said display means displays that the data erasing process is not to be executed on the optical disk.

10. An optical disk data erasing apparatus as defined in Claim 9 further comprising:

a second jumper switch setting means for setting ON/OFF of a second jumper switch;

wherein said setting identification means identifies the setting of the second jumper switch;

when it is identified that the second jumper switch is ON, said erasing means executes the data erasing process over the entire surface of the optical disk; and

when it is identified that the second jumper switch is OFF, said erasing means executes the data erasing process on a final session.

11. An optical disk data erasing apparatus as defined in Claim 7 or 8 further comprising:

a disk recording information acquisition means for acquiring information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk;

wherein said erasing means erases recorded data from the data-recorded area.

12. An optical disk data erasing apparatus as defined in Claim 11 further comprising:

a determination means for determining whether data are recorded on the write-once optical disk or not, on the basis of

the disk recording information obtained by the disk recording information acquisition means;

wherein, when data are recorded on the write-once optical disk, said erasing means executes the recorded-data erasing process; and

when no data are recorded on the write-once optical disk, said ejection means automatically ejects the optical disk, and the display means displays that the data erasing process is not to be executed on the optical disk.

13. An optical disk data erasing method comprising:

a judgement step of making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an instruction recognition step of recognizing an instruction from a host computer; and

a data erasing step of overwriting the optical disk which is judged as a write-once optical disk in the judgement step, by irradiating the optical disk with a laser beam having the same recording power as that at recording, on the basis of the instruction, thereby erasing data recorded on the optical disk.

14. An optical disk data erasing method comprising:

a judgement step of making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an instruction recognition step of recognizing an instruction

from a host computer; and

an erasing step of overwriting the optical disk which is judged as a write-once optical disk in the judgement step, by irradiating the optical disk with a laser beam having a recording power higher than that at recording, on the basis of the instruction, thereby erasing data recorded on the optical disk.

15. An optical disk data erasing method as defined in Claim 13 or 14 further comprising:

a disk recording information acquisition instruction step of issuing a disk recording information acquisition instruction from the host computer; and

a disk recording information acquisition step of acquiring information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk, on the basis of the disk recording information acquisition instruction;

wherein data recorded in the data-recorded area are erased in the erasing step.

16. An optical disk data erasing method as defined in Claim 15, further comprising:

a determination step of determining whether data are recorded on the write-once optical disk or not, on the basis of the disk recording information which is obtained in the disk recording information acquisition step;

wherein, when data are recorded on the write-once optical disk, the recorded data are erased in the erasing step; and

when no data are recorded on the optical disk, an error signal is returned to the host computer in the determination step to notify the user that the data erasing process is not to be executed on the optical disk.

17. An optical disk data erasing method as defined in Claim 15 further comprising:

a notification step of notifying the user of the disk recording information which is obtained in the disk recording information acquisition step, through the host computer;

an erasing area specification instruction step in which the user issues an instruction for specifying a data erasing area, on the basis of the disk recording information, through the host computer; and

an erasing area detection step of detecting, from the data-recorded area obtained in the disk recording information acquisition step, an area corresponding to the specified erasing area on the basis of the instruction;

wherein data recorded in the erasing area, which is detected by the erasing area detection means, are erased in the erasing step.

18. An optical disk data erasing method as defined in Claim 13

or 14 further comprising:

a setting step in which the user sets, through the host computer, whether an interface bus is to be occupied or not during execution of the data erasing process;

a monitoring instruction step of periodically issuing an erasing state monitoring instruction from the host computer, when it is set that the interface bus is not to be occupied; and

a monitoring step of monitoring the data erasing state on the basis of the erasing state monitoring instruction.

19.   An optical disk data erasing method comprising:

a first jumper switch setting step of setting ON/OFF of a first jumper switch;

a setting identification step of identifying the setting of the first jumper switch;

a judgement step of making a judgement as to whether a loaded optical disk is a write-once optical disk or not;

an erasing step of overwriting the write-once optical disk by irradiating the optical disk with a laser beam having the same recording power as that at recording, according to the setting of the first jumper switch, thereby erasing data recorded on the optical disk; and

an ejection step of automatically ejecting the optical disk after the data erasing process;

wherein, when the first jumper switch is ON, the erasing step

starts the data erasing operation; and

when the first jumper switch is OFF or when it is judged in
the judgement step that the loaded optical disk is not a write-
once optical disk, the optical disk is automatically ejected in
the ejection step, and it is displayed, in a display step, that
the data erasing process is not to be executed on the optical
disk.

20. An optical disk data erasing method comprising:

a first jumper switch setting step of setting ON/OFF of a
first jumper switch;

a setting identification step of identifying the setting of
the first jumper switch;

a judgement step of making a judgement as to whether a loaded
optical disk is a write-once optical disk or not;

an erasing step of overwriting the write-once optical disk by
irradiating the optical disk with a laser beam having a recording
power higher than that at recording, according to the setting of
the first jumper switch, thereby erasing data recorded on the
optical disk; and

an ejection step of automatically ejecting the optical disk
after the data erasing process;

wherein, when the first jumper switch is ON, said erasing
step starts the erasing operation; and

when the first jumper switch is OFF or when it is judged in

the judgement step that the loaded optical disk is not a write-once optical disk, the optical disk is automatically ejected in the ejection step, and it is displayed, in a display step, that the data erasing process is not to be executed on the optical disk.

21. An optical disk data erasing method as defined in Claim 19 or 20 further comprising:

a checking step of checking whether the data erasing process has ended normally or not;

wherein, when the data erasing process for the write-once optical disk has not ended normally, the optical disk is automatically ejected in the ejection step, and it is displayed, in the display step, that the data erasing process is not to be executed on the optical disk.

22. An optical disk data erasing method as defined in Claim 21 further comprising:

a second jumper switch setting step of setting ON/OFF of a second jumper switch;

wherein the setting of the second jumper switch is identified in the setting identification step;

when it is identified that the second jumper switch is ON, the data erasing process is executed over the entire surface of the optical disk in the erasing step; and

when it is identified that the second jumper switch is OFF, the data erasing process is executed on a final session in the erasing step.

23. An optical disk data erasing method as defined in Claim 19 or 20 further comprising:

a disk recording information acquisition step of acquiring information relating to a data-recorded area or a data-unrecorded area of the write-once optical disk;

wherein data recorded in the data-recorded area are erased in the erasing step.

24. An optical disk data erasing method as defined in Claim 23 further comprising:

a determination step of determining whether data are recorded on the write-once optical disk or not, on the basis of the disk recording information obtained in the disk recording information acquisition step;

wherein, when data are recorded on the write-once optical disk, the recorded data are erased in the erasing step; and

when no data are recorded on the write-once optical disk, the optical disk is automatically ejected in the ejection step, and it is displayed, in the display step, that the data erasing process is not to be executed on the optical disk.